



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,518	04/13/2006	Guofu Zhou	US030408	2567
24737 7590 11/25/2008 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510				
EXAMINER				
SADIO, INSA				
ART UNIT		PAPER NUMBER		
2629				
MAIL DATE		DELIVERY MODE		
11/25/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/575,518

**Applicant(s)**

ZHOU ET AL.

**Examiner**

INSA SADIO

**Art Unit**

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 April 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-21 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 13 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☒ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-893)  
Paper No(s)/Mail Date 4/13/2006  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 1-6, 8-11, 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mauro, Jr. (US Patent number 3,903,516), hereinafter referenced as Mauro.

**As of claim 8**, Mauro discloses wherein said An apparatus for use in driving a display in a bi-stable device (col 3 L 15-33), comprising:  
means for retrieving a portion of coded data from a memory (col 3 L59 – col 4 L3 this is obviously the same as the claimed invention) based on at least a selected one of a plurality of different pixel transitions (col 3 L 1-14); means for decoding the portion of the stored coded data (col 4 L34-41, and L54-65) to provide decoded data ([col 4 L9-22 (please note: the write character is a decoded data (see, col 4 L34-46))]; and means (col 7 L13-25 [analog power circuits]) for providing at least one voltage waveform for driving the display (col 7 L 13-25 [operating voltages]) based on the decoded data (please note: the write character is a decoded data (see, col 4 L34-41)); wherein the stored coded data (col 3 L59 – col 4 L3) includes data for driving the display (col 3 L64-col4 L3) for the plurality of different pixel transitions (col 3 L 1-10 [gas discharge cells or sites]).

**As of claim 9**, Mauro teaches the limitation of claim 8 above.

Further, Mauro discloses wherein said the coded data comprises voltage level (col 4 L11-25 [outputs labeled write or write level]) and timing information (col 4 L11-25 [timing signals]) for each of the plurality of different pixel transitions (col 3 L 1-10 [gas discharge cells or sites]).

**As of claim 10**, Mauro teaches the limitation of claim 8 above.

Mauro does not teach wherein said **the means for retrieving retrieves the portion of the stored coded data in at least one fixed length frame instruction.**

However, it is well known in the art that an image to be displayed is stored in one fixed length frame instruction.

**As of claim 11**, Mauro teaches the limitation of claim 8 above.

Mauro does not teach wherein said **the means for retrieving retrieves the portion of the stored coded data based on a selected update mode of the display.**

However, it is well known in the art that any new image to be displayed is updated on the display.

**As of claim 14**, Mauro teaches the limitation of claim 8 above.

Mauro does not teach wherein said **the display comprises an electrophoretic display.**

However, it is well known in the art to have display that comprises electrophoretic display (see specification paragraphs [0001], [0007]).

3. **claim 1** is rejected the same as claim 8. The only difference is claim 1 is a method.

**claim 2** is rejected the same as claim 9. The only difference is claim 2 is a method.

**claim 3** is rejected the same as claim 12. The only difference is claim 3 is a method.

**claim 4** is rejected the same as claim 10. The only difference is claim 4 is a method.

**claim 5** is rejected the same as claim 11. The only difference is claim 5 is a method.

**claim 6** is rejected the same as claim 13. The only difference is claim 6 is a method.

2. **Claims 12, 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mauro in view of Shanks (US Patent number 4,346,378).

**As of claim 12**, Mauro teaches the limitation of claim 8 above.

Mauro does not teach wherein said **the stored coded data comprises data for driving the display at different temperatures; and the means for retrieving retrieves the portion of the stored coded data based on a selected one of the different temperatures.**

However, Shanks teaches **the stored coded data comprises data for driving the display at different temperatures** (col 3 L 48-59 "...illustrate of signal levels ... temperature); **and the means for retrieving retrieves the portion of the stored**

**coded data based on a selected one of the different temperatures** (col 3 L 48-59

"...illustrate of signal levels ... sensors").

**As of claim 13**, Mauro teaches the limitation of claim 8 above.

Further, Mauro teaches wherein said **the stored coded data comprises voltage level** (col 4 L9-25 [outputs labeled write or write level]) **and timing information for each of the different pixel transitions** (col 4 L9-25 [timing signals]).

Shanks teaches wherein said **"...and each of the different temperatures."** (col 3 L 48-59 "...illustrate of signal levels ... temperature).

3. **Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over Mauro in view of Kunimori et al. (US Publication number 2006/0103682), hereinafter referenced as Kunimori.

**As of claim 7**, Mauro teach the limitation of claim 6 above.

Further, Mauro teaches wherein said storing pointers ( col 3 L 37-45 [ROS MOD SEL equivalent to pointers]) to the stored coded data (col 3 L 64- col 4 L3) for the different pixel transitions (col 3 L 1-10 [gas discharge cells or sites]); and storing relative address information (col 3 L 37-45) for locating the stored coded data (col 3 L 64- col 4 L3).

Mauro does not teach wherein said **"...for driving the display at the plurality of different temperatures based on offsets from associated ones of the pointers.**

However, Kunimori discloses a selection of a lookup table according to temperature (see para [0040]).

Therefore, it would be obvious to one ordinary skill in the art at the time the invention was made to combine Mauro's method of storing pointers with the teaching of driving the display at the plurality of different temperatures based on offsets from associated ones of the pointers, as taught by Kunimori, for the purpose of accuracy and speed.

4. **Claims 15-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mauro in view of Gelbman (US Publication number 2002/0167500).

**As of claim 15**, Mauro discloses wherein said storing coded data (col 3 L59 – col 4 L3) for driving the display (310) for different pixel transitions; retrieving a portion of the stored coded data based on at least a selected one of the different pixel transitions(col 3 L 1-14); decoding the portion of the stored coded data to provide decoded data(clo 4 L34-41, and L54-65); and providing at least one voltage waveform for driving the display based on the decoded data(please note: the write character is a decoded data (see, col 4 L34-41)).

Mauro does not teach **a program storage device tangibly embodying a program of instructions executable by a machine to perform a method for driving a display in a bi-stable device.**

However, Gelbman teaches a storage element that stores computer programs (see para [0046]).

Therefore, it has been obvious to one ordinary skill in the art at the time the invention was made to combine Mauro display device with the teaching of a program storage device tangibly embodying a program of instructions executable by a machine

to perform a method for driving a display in a bi-stable device, as taught by Gelbman, for the purpose of storing instructions to run the display.

**Regarding claim 16**, Mauro and Gelbman teach the limitation of claim 15 above.

Further, Mauro discloses wherein said the coded data comprises voltage level (col 4 L11-25 [outputs labeled write or write level]) and timing information (col 4 L11-25 [timing signals]) for each of the plurality of different pixel transitions (col 3 L 1-10 [gas discharge cells or sites]).

**Regarding claim 17**, Mauro and Gelbman teach the limitation of claim 15 above.

Mauro does not teach wherein said **the retrieving of portion of coded data comprise retrieving the portion of the stored coded data in at least one fixed length frame instruction**.

However, it is well known in the art that an image to be displayed is stored in one fixed length frame instruction.

**Regarding claim 18**, Mauro and Gelbman teach the limitation of claim 15 above.

Mauro does not teach wherein said **the retrieving of portion of coded data comprise retrieving the portion of the stored coded data based on a selected update mode of the display**.

However, it is well known in the art that any new image to be displayed is updated on the display.



5. **Claims 19, 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mauro in view of Shanks and further in view of Gelbman.

**As of claim 19**, Mauro as modified by Shanks and Gelbman teach the limitation of claim 15 above.

Shanks teaches **the storing of the coded data comprises storing data for driving the display at different temperatures** (col 3 L 48-59 "...illustrate of signal levels ... temperature **the retrieving of portion of coded data comprise retrieving the portion of the stored coded data based on a selected one of the different temperatures** (col 3 L 48-59 "...illustrate of signal levels ... sensors").

**As of claim 20**, Mauro as modified by Shanks and Gelbman teach the limitation of claim 15 above.

Further, Mauro teaches wherein said **the stored coded data comprises voltage level** (col 4 L9-25 [outputs labeled write or write level]) **and timing information for each of the different pixel transitions** (col 4 L9-25 [timing signals]).

Shanks teaches wherein said **"...and each of the different temperatures."** (col 3 L 48-59 "...illustrate of signal levels ... temperature).

6. **Claim 21** is rejected under 35 U.S.C. 103(a) as being unpatentable over Mauro in view of Kunimori.

**As of claim 21**, Mauro in view of Shanks teach the limitation of claim 6 above.

Further, Mauro teaches wherein said storing pointers ( col 3 L 37-45 [ROS MOD SEL equivalent to pointers]) to the stored coded data (col 3 L 64- col 4 L3) for the

different pixel transitions (col 3 L 1-10 [gas discharge cells or sites]); and storing relative address information (col 3 L 37-45) for locating the stored coded data (col 3 L 64- col 4 L3).

Mauro does not teach wherein said “...**for driving the display at the plurality of different temperatures based on offsets from associated ones of the pointers.**

However, Kunimori discloses a selection of a lookup table according to temperature (see para [0040]).

Therefore, it would be obvious to one ordinary skill in the art at the time the invention was made to combine Mauro's method of storing pointers with the teaching of driving the display at the plurality of different temperatures based on offsets from associated ones of the pointers, as taught by Kunimori, for the purpose of accuracy and speed.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to INSA SADIO whose telephone number is (571)270-5580. The examiner can normally be reached on MONDAY through FRIDAY 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

INSA SADIO  
Examiner  
Art Unit 2629

/INSA SADIO/  
Examiner, Art Unit 2629

/Amare Mengistu/

Supervisory Patent Examiner, Art Unit 2629